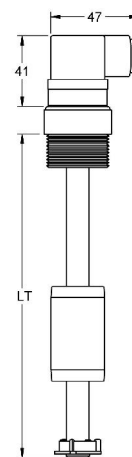
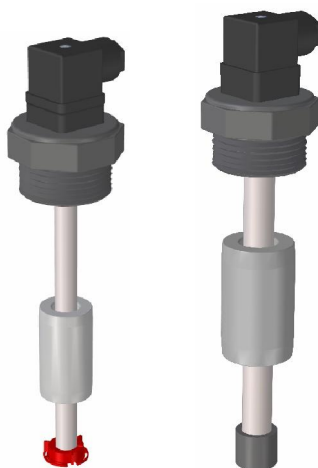

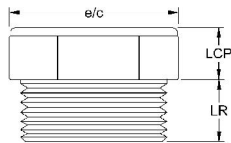




IMN TC PVC

MAGNETIC LEVEL SWITCH



| | | | | | |
|--------------------|--|--|---------|---|------|
| General | Operating principle | The IMN level magnetic sensors are based on the action of a reed switch located inside the tube, which is activated by a magnet housed inside the float and moves due to the thrust of the liquid. | | | |
| | Application | · For the detection of one or more points in liquid level. · Used in maneuvers for filling, emptying, overflow alarm, etc. | | | |
| | Manufacturing | Are customized to suit the installation conditions. | | | |
| Housing | Electrical connection | DIN43650 connector | | | |
| | Protection | IP 65 | | | |
| | Temperature (T _a) | -20..+90 °C | | | |
| | Cable gland | PG 9 | | | |
| | Ø Cable hose (mm) | 6..8 mm | | | |
| Body | Guide tube and stops | 100..1000 mm Ø12 mm (PVC) FCPP04M14 (PP) 1000..3500 mm Ø16 mm (PVC) FCPP05M18 (PP) | | | |
| | Temperature | -10..+60 °C | | | |
| | Mounting position | Vertical, ±15° | | | |
| Process connection | Thread | 1" G | 1"1/4 G | 1"1/2 G | 2" G |
| | Material | PVC | | | |
| |  e/c (mm) | 36 | 46 | 55 | 64 |
| | LR (mm) | 19 | 21 | | 26 |
| | LCP (mm) | 15 | 16 | 17 | |
| | Be tempted to float is narrower than the width of thread |  | | | |
| Floats | Model | FCPP04M14 | | FCPP05M18 | |
| | Material | PP | | | |
| | Dimension (mm) | Ø 29x50 | | Ø 38x60 | |
| | Pressure (kg/cm²) | 3 | | | |
| | Density (g/cm³) | e > 0,6 | | e > 0,5 | |
| | FS / FH (mm) | 20 / 30 | | 30 / 30 | |
| |  | | |  | |
| Contacts | Nr. of contacts | 1..3 | | | |
| | Class | NO: 120 WVA / 250 VAC-3A NC-NO/NC: 60 WVA / 230 VAC-1A | | | |
| | Distance between them | > 40 mm | | | |
| Protection | Standard | Normal execution without inner filling. Applicable to most applications. | | | |
| | Protected | Anti-condensation effect. In installations where there are large temperature differentials. | | | |
| | Insulated | Filled with epoxy resin. Establishing a higher degree of tightness. | | | |
| | | | | | |

How to determine the sensor settings

Determine the total length according to the characteristics of the shell and the liquid level to be controlled.

According to the maneuver you wish to perform, determine the amount, location and type of contacts.
Use the table below to define these characteristics.

Contacts: To set the type of contact (NO, NC, NONC) should be without the presence of the float. For example, if you want the lower end of the sensor contact opens when the tank runs out of fluid, seek an NC contact for the position.

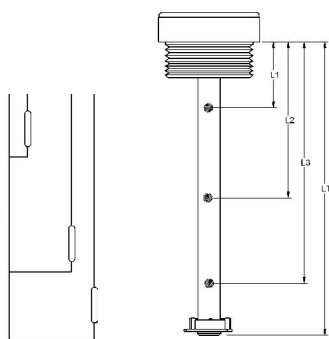
Direction of action (\uparrow \downarrow): Set the direction of action of the float (the filling or emptying) allows more precise adjustment of the position of the contacts to the point of desired performance.

Electrical connection: If not otherwise specified explicitly, provide a common connection to all the contacts and an active connection for each of them, according to the diagram below.

Additional floats: The sensor comes equipped by default with a single float, the lower stop and if required, the upper stop. Can request as many additional floats as many contacts as necessary.

Conditions of work: Check that the conditions of pressure, temperature and density of your system match those offered by the model chosen. If you have questions regarding the behavior of materials in contact with the liquid you want to control, see chemical resistance chart on our website.

Apart from the possibilities listed here, there are others such as other floats, various electrical connections, etc. For any of these combinations refer to our document, "Connections and schema IMN" section in our website.



Basic electrical connection

| | mm | NO | NC | NONC | \uparrow | \downarrow | Stop |
|----|----|----|----|------|------------|--------------|------|
| L1 | | | | | | | |
| L2 | | | | | | | |
| L3 | | | | | | | |
| LT | | | | | | | |

Use this document to define the data of sensor and attach it at the time of ordering. Specify in mm. total length of the sensor.

Specify in mm. the position of each of the contacts used in your application. Place an "X" the type and direction of action of each contact.

In the case of using additional floats, mark an "X" between what contacts should be placed caps separators.

In the composition table references check boxes next to the selected features.

| REFERENCE | VERSION | PROCESS | FLOAT | TOTAL LENGTH | Nr. CONTACTS | Nr. FLOATS |
|------------|---------------------------------------|---------------------------------------|--|----------------|--|--------------------------------------|
| IMN TC PVC | <input type="checkbox"/> V1 Standard | <input type="checkbox"/> P06 1" | | L 100..3500 mm | <input type="checkbox"/> C1 1 contact | <input type="checkbox"/> N1 1 float |
| | <input type="checkbox"/> V2 Protected | <input type="checkbox"/> P07 1" 1/4 G | <input type="checkbox"/> F51 FCPP04M14 | | <input type="checkbox"/> C2 2 contacts | <input type="checkbox"/> N2 2 floats |
| | <input type="checkbox"/> V3 Insulated | <input type="checkbox"/> P08 1" 1/2 G | <input type="checkbox"/> F52 FCPP05M18 | | <input type="checkbox"/> C3 3 contacts | |
| | | <input type="checkbox"/> P10 2" G | | | | |

To compose a reference, select an option from each of the columns. Example: IMN TC PVC V1 P08 F51 L500 C1 N1

| Installations advise | | Installation in areas with turbulence | | | |
|--|--|---|---|------------------------------------|--|
| | | | | | |
| If the tank is metal walls, the probe will separate from them at least 100 mm. | The maximum slope should be $\pm 15^\circ$ | Place the sensor as far as possible from areas of turbulence. | Still pipe. Protects the race of the float of the turbulence. | Separating wall or discouragement. | PSIA, DSIA relay: Differential control of max. and min. by timing. |

EXAMPLES OF ELECTRICAL CONNECTION

1 CONTACT



CNX1

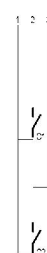


CNX2



CNX3

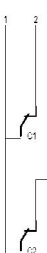
2 CONTACTS



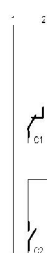
CNX4



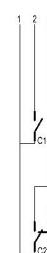
CNX5



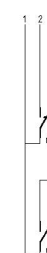
CNX6



CNX7



CNX8



CNX9

3 CONTACTS



CNX12



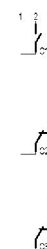
CNX13



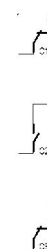
CNX14



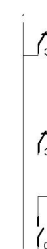
CNX15



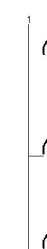
CNX16



CNX17



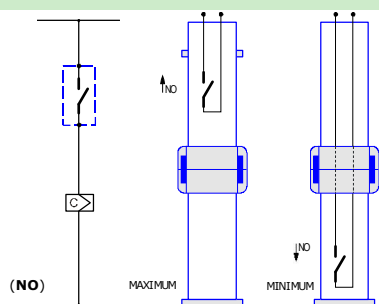
CNX18



CNX19

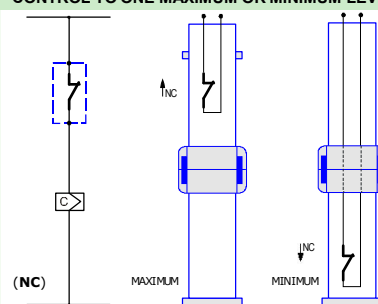
EXAMPLES TO APPLICATION

1 CONTACT

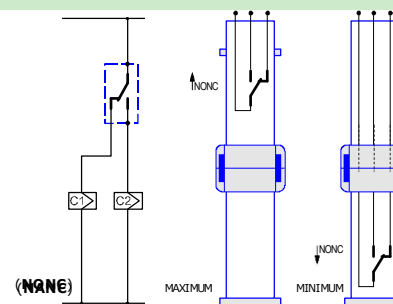


(NO)

CONTROL TO ONE MAXIMUM OR MINIMUM LEVEL

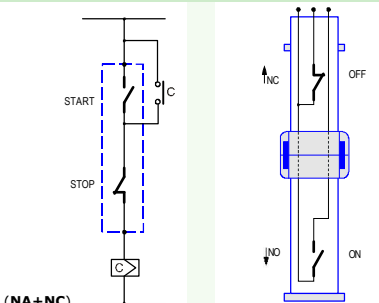


(NC)



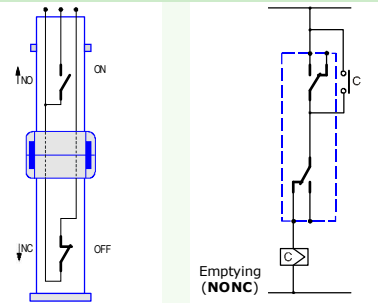
(N/NC)

2 CONTACTS

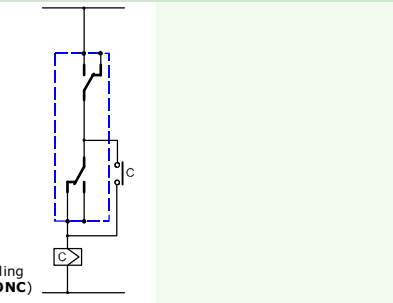


(NA+NC)

START-STOP WITH INTERLOCKING

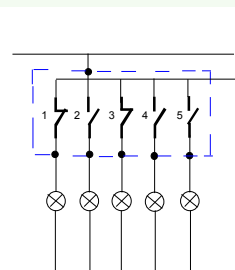


(NONC)

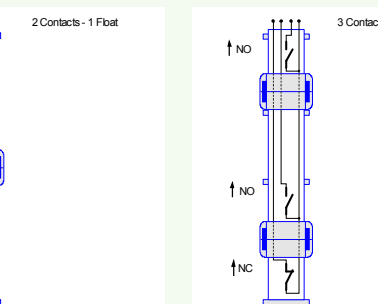


(NONC)

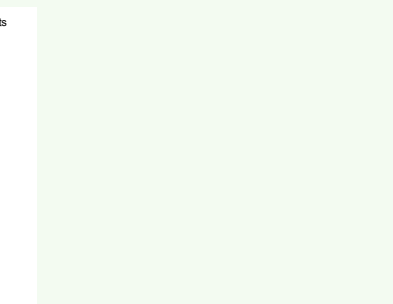
3 CONTACTS



START-STOP EMPTYING + ALARM TO MINIMUM LEVEL



(2 Contacts - 1 Float)



(3 Contacts - 2 Floats)

More related information in "Utilities / Tables" on our website (www.disibeint.com)

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